

WHAT IS CLAIMED IS:

1.           A domestic electrical apparatus, comprising:  
              a controller unit including communication  
              means with an outside, operating means, and data  
              processing means,  
  
              wherein said controller unit further includes  
              a cryptographic processing unit for utilizing  
              information as a part or a whole of a cryptographic key  
              for an information communication performed by said  
              communication means, said information having a one-to-  
              one correspondence relationship with an appliance  
              number that is specific to said domestic electrical  
              apparatus.
2.           A domestic electrical apparatus as claimed in  
              Claim 1, wherein, when said appliance number is  
              utilized as said part of said cryptographic key,  
              remainder of said cryptographic key is information that  
              has a one-to-one correspondence relationship with code  
              information for specifying a manufacturing maker of  
              said domestic electrical apparatus.
3.           A domestic electrical apparatus as claimed in  
              Claim 1, wherein said cryptographic processing unit  
              converts information data to be sent, into encrypted  
              data by using said cryptographic key, and decrypts  
              received data back to information data by using said  
              cryptographic key.
4.           A domestic electrical apparatus as claimed in  
              Claim 3, wherein

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said communication means is connectable to an Echonet implemented for a power line carrier communication; and

said data processing means is controllable to service providing parties on a wide area network from said Echonet via a gateway.

5. A domestic electrical apparatus as claimed in Claim 3, wherein said data processing means is controllable to send provision of a service along with a user ID to service providing parties on a wide area network via said communication means, said service being specified by an operation performed by said operating means.

6. A domestic electrical apparatus as claimed in Claim 4, wherein said controller unit includes an authenticating unit for executing an authentication of an operating party for said operating means.

7. A domestic electrical apparatus as claimed in Claim 4, wherein said controller unit stores information for supporting said operation performed by said operating means for requesting said service provision, and further includes a database made accessible from said data processing means.

8. A domestic electrical apparatus as claimed in Claim 4, wherein said data processing means has a controlling function for selecting a superior service providing party by considering a price-to-service ratio with respect to said service specified from said

operating means.

9. A domestic electrical apparatus as claimed in Claim 4, wherein said controller unit further includes a life-reaction processing unit for detecting presence or absence of a life-reaction on a basis of an interval between operations toward said domestic electrical apparatus to be capable of making an abnormality report via said communication means on a basis of a judgement that there exists no life-reaction.

10. A domestic electrical apparatus as claimed in Claim 4, wherein said controller unit further includes a failure detection processing unit that is capable of making a failure report via said communication means when said domestic electrical apparatus is judged to fail.

11. A domestic electrical apparatus as claimed in Claim 3, wherein said controller unit further includes an energy-saving processing unit for controlling said domestic electrical apparatus into a working state that is suitable for a set-up environment of said domestic electrical apparatus.

12. A domestic electrical apparatus as claimed in Claim 3, wherein said operating means performs said transmission/reception of said information with said data processing means via a power-saved wireless or infrared ray.

13. A subscriber registering method of registering, as a service requester, a purchaser of a

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domestic electrical apparatus into a computer apparatus of a service provider for providing a predetermined service to said purchaser, comprising the processings of:

inputting an appliance number specific to said domestic electrical apparatus that said purchaser purchases;

acquiring a cryptographic key having a one-to-one correspondence relationship with said inputted appliance number; and

registering said acquired cryptographic key as one of subscriber information on said service requester,

wherein, in performing service provision to said subscriber, information to be provided to said subscriber is encrypted using said cryptographic key, and information provided from said subscriber is decrypted using said cryptographic key.

14. A subscriber registering method as claimed in Claim 13, wherein said processing of acquiring said cryptographic key includes a processing of presenting said appliance number to a computer apparatus that a manufacturing maker of said domestic electrical apparatus manages, and a processing of receiving said cryptographic key returned in response to said presented appliance number.

15. An order receiving method by which a host apparatus connected to a terminal apparatus via a

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network receives an order from said terminal apparatus, comprising the processings of:

making reference to a database in which cryptographic keys are registered in being caused to correspond to user IDs, said cryptographic keys being caused to be related in a one-to-one manner to appliance numbers specific to domestic electrical apparatuses onto which terminal apparatuses are integrated, to retrieve a cryptographic key corresponding to a user ID from said terminal apparatus;

decrypting, using said retrieved cryptographic key, order data from said terminal apparatus to receive said order; and

encrypting, using said retrieved cryptographic key, confirmation data for confirming said received order.

16. An order receiving method as claimed in Claim 15, further comprising a processing of setting an upper-limit of a price for said order from said terminal apparatus to limit reception of said order up to said upper-limit.

17. An order receiving method as claimed in Claim 15, wherein said host apparatus performs a processing of sending order-reception information to a dealing party for performing dispatch of an order-received commodity or fulfillment of an order-received service.

18. An order receiving method as claimed in Claim

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15, wherein said host apparatus performs a processing of sending order-reception information to a settlement institution for settling a price for a received order.

19. An order receiving method as claimed in Claim 15, wherein said host apparatus performs a processing of providing in advance order-receivable contents to a plurality of terminal apparatuses as a transaction guide.

20. An order receiving method as claimed in Claim 15, wherein said host apparatus performs a processing of studying order-received contents on each user ID basis, and of providing order-receivable transaction contents, which satisfy a taste predicted from result of said study, to said terminal apparatus of said user ID as a transaction guide.

21. A data processing system comprising a host apparatus connectable to a terminal apparatus via a network, wherein

said host apparatus includes a database in which cryptographic keys are registered in being caused to correspond to user IDs, said cryptographic keys being caused to be related in a one-to-one manner to appliance numbers specific to domestic electrical apparatuses onto which terminal apparatuses are integrated,

said host apparatus retrieves, from said database, a cryptographic key corresponding to a user ID that accompanies a transaction request from said

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terminal apparatus, and

said host apparatus decrypts, using said retrieved cryptographic key, information data sent from said terminal apparatus, and encrypts, using said retrieved cryptographic key, information data to be sent to said terminal apparatus, thereby receiving said transaction request from said terminal apparatus.

22. A data processing system as claimed in Claim 21, further comprising a fulfillment side terminal apparatus for inputting transaction request contents to cause said contents to be fulfilled, said transaction request contents being received from said terminal apparatus by said host apparatus.

23. A data processing system as claimed in Claim 21, further comprising a price-settlement side terminal apparatus for inputting transaction request contents to cause a price for said request to be settled, said transaction request contents being received from said terminal apparatus by said host apparatus.

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